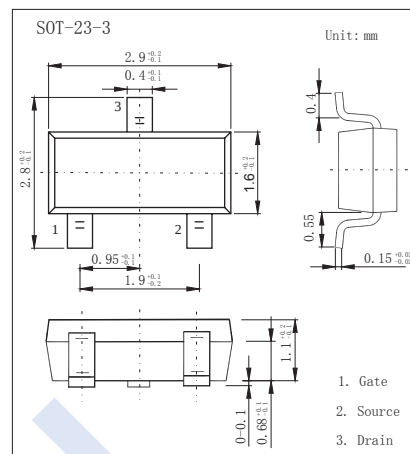
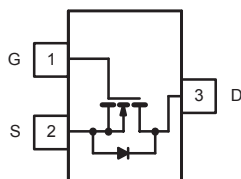


N-Channel Enhancement MOSFET

2SK3002DS

■ Features

- $V_{DS}=20V$
- $R_{DS(on)}=70m\Omega@V_{GS}=4.5V, I_D=3.6A$
- $R_{DS(on)}=100m\Omega@V_{GS}=2.5V, I_D=3.1A$



■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	± 8	
Continuous Drain Current $T_J = 150^\circ C$ *1	I_D	$T_a = 25^\circ C$ 2.8	A
		$T_a = 70^\circ C$ 2.2	
Pulsed Drain Current	I_{DM}	10	
Power Dissipation	P_D	$T_a = 25^\circ C$ 1.25	W
		$T_a = 70^\circ C$ 0.8	
Thermal Resistance.Junction- to-Ambient	R_{thJA}	*1 100	$^\circ C/W$
		*2 166	
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55 to 150	

Notes:

*1.Surface Mounted on FR4 Board, $t \leq 5$ sec.

*2.Surface Mounted on FR4 Board.

N-Channel Enhancement MOSFET

2SK3002DS

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V _{DSS}	I _D =250 μA, V _{GS} =0V	20			V
Zero Gate Voltage Drain Current	I _{DSS}	V _D =20V, V _{GS} =0V			1	μA
		V _D =20V, V _{GS} =0V, T _J =55℃			10	
Gate-Body Leakage Current	I _{GSS}	V _D =0V, V _{GS} =±8V			±100	nA
Gate Threshold Voltage	V _{GS(th)}	V _D =V _{GS} , I _D =250 μA	0.6		1.0	V
Static Drain-Source On-Resistance	R _{DS(on)}	V _{GS} =4.5V, I _D =3.6A			70	mΩ
		V _{GS} =2.5V, I _D =3.1A			100	
Forward Transconductance *	g _{fs}	V _D =5V, I _D =3.6A		8		S
Input Capacitance	C _{iss}	V _{GS} =0V, V _D =10V, f=1MHz		300		pF
Output Capacitance	C _{oss}			120		
Reverse Transfer Capacitance	C _{rss}			80		
Total Gate Charge	Q _g	V _D =10V, V _{GS} =4.5V, I _D =3.6A		4	10	nC
Gate-Source Charge	Q _{gs}			0.65		
Gate-Drain Charge	Q _{gd}			1.5		
Turn-On DelayTime	t _{d(on)}	V _{GS} =4.5V, V _D =10V, R _L =5.5Ω, R _{GEN} =6Ω I _D =3.6A		7	15	ns
Turn-On Rise Time	t _r			55	80	
Turn-Off DelayTime	t _{d(off)}			16	60	
Turn-Off Fall Time	t _f			10	25	
Continuous Source Current (Diode Conduction)	I _S			1.6		A
Diode Forward Voltage	V _{SD}	I _S =1.6 A, V _{GS} =0V		0.76	1.2	V

* Pulse test: PW ≤ 300μs duty cycle ≤ 2%

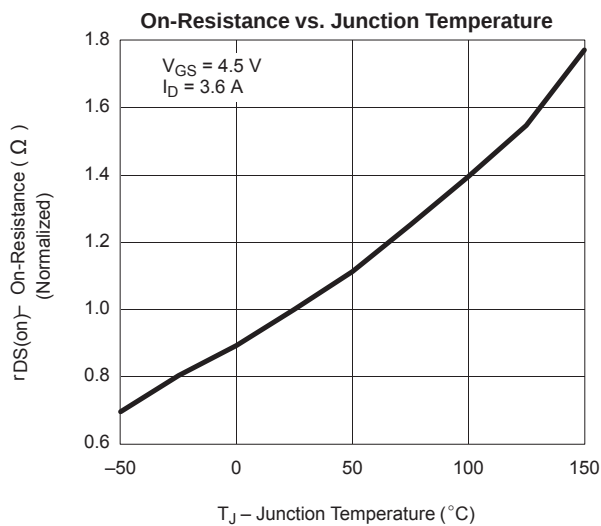
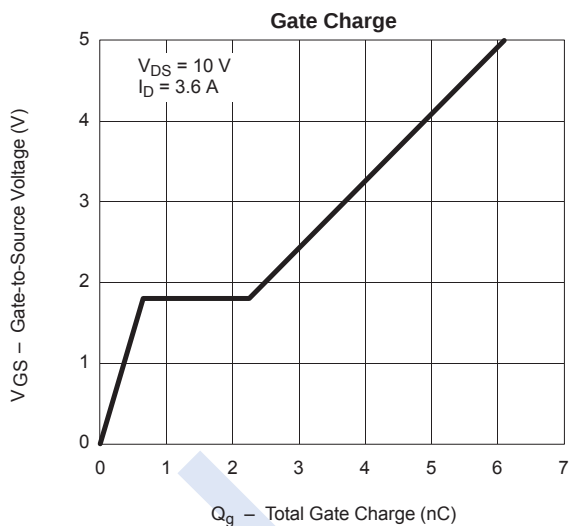
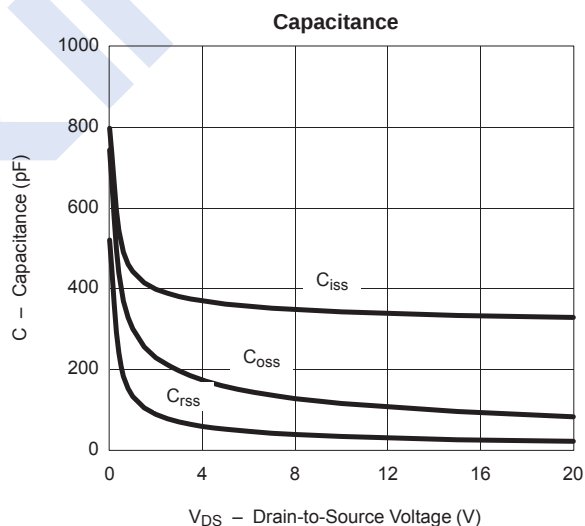
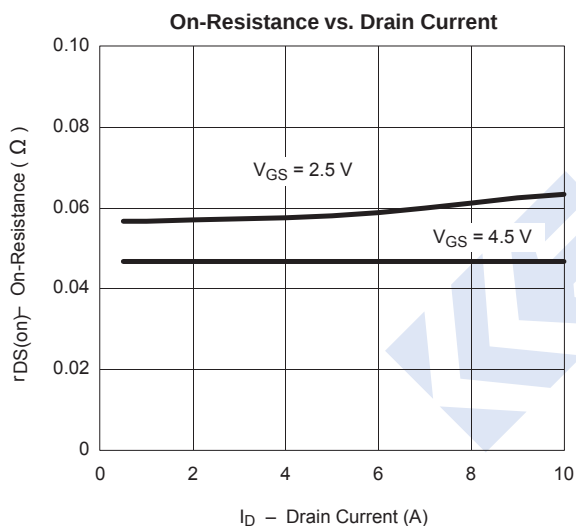
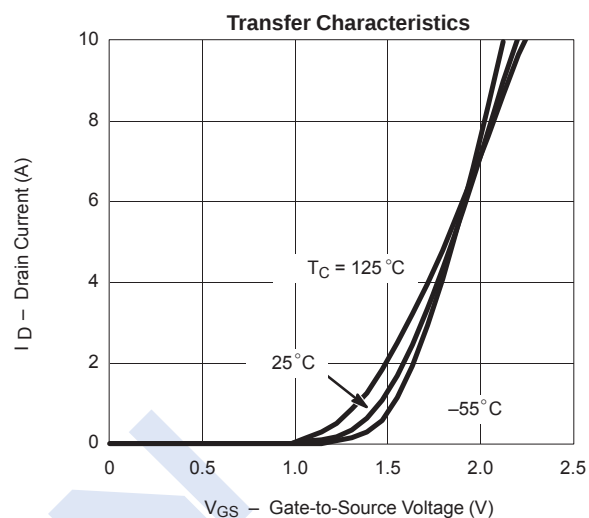
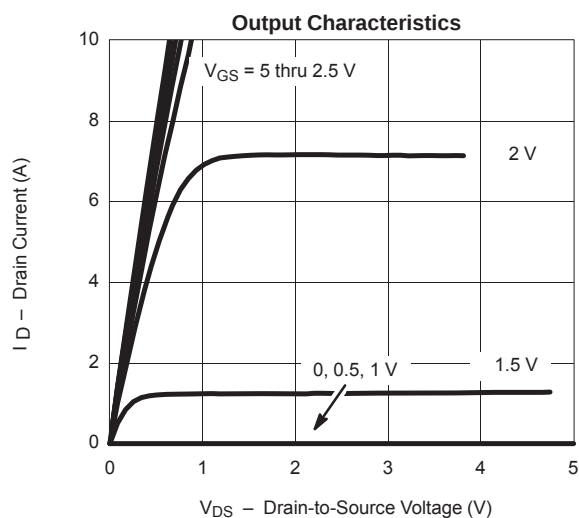
■ Marking

Marking	A2*
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N-Channel Enhancement MOSFET

2SK3002DS

■ Typical Characteristics



N-Channel Enhancement MOSFET

2SK3002DS

■ Typical Characteristics

